THE TULSA, OKLAHOMA, PARK SYSTEM

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PREFACE

This geographic study is of the Tulsa Park System, its history and development. Also considered are the facilities, needs, plans and future growth. The geographic location and its effects on the parks are included.

The writer lived seven years in Tulsa during his boyhood and was graduated from the suburban Union High School. He has since been employed as a teacher in the Tulsa Public Schools, and served as a counselor in the Tulsa Park System during the summer of 1956.

Since there is very little published material that would assist this study, the writer relied on field study, having visited and studied all the present parks and other areas that have been acquired for future development. Supervisors and members of the Tulsa Park System were interviewed regarding the various problems, functions and duties of the personnel, and the effectiveness of the entire Tulsa System.

Any opinions stated are those of the writer and do not necessarily represent the belief of the officials of the Tulsa Park System or sources quoted.

The writer wishes to express his gratitude to Dr. David C. Winslow, Associate Professor of Geography, Oklahoma A. and M. College, for suggesting the subject and for assisting in the preliminary preparation of this thesis. Much appreciation is expressed to Dr. Edward E. Keso, Professor of Geography, Oklahoma A. and M. College, for his assistance in the completion of the study and his faith and encouragement in its preparation.

To Mr. A. O. Zeigler, Superintendent of the Tulsa Park Department, whose kind consideration in furnishing information and material, and to the members of his staff, Mr. Hugh Davis, Director of Mohawk Park Zoo, Mr. George Taylor, Director of Recreation, and Mr. Leonard Kennedy, Director of the Tulsa Rose Garden, the writer expresses profound gratitude.

The writer is also indebted to Mr. Leslie R. Davis, whose thesis questionnaire survey was the basis for geographical comparisons.

R. V. G.

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CHAPTER I

INTRODUCTION

The Tulsa Park System, which is the object of this geographic study, is located within the environs or nearby the city of Tulsa. Hence, a geographic description of the city is made with reference to the characteristics of the park sites.

Tulsa is located 36.9 North Latitude and 95.59 West Longitude[1] in the center of Tulsa County in northeastern Oklahoma. It is situated 90 airline miles from the eastern boundary of the state, 60 airline miles from the northern boundary of the state, and 100 airline miles northeast of Oklahoma City, the state capitol. The city embraces some 36.22[2] square miles and an estimated population of 235,000.[3] The city is approximately 12 and two fifths miles from east to west and 10 and two fifths miles from north to south. It has a semi-circular shape which generally follows the course of the Arkansas River, with 90 per cent of the people residing in this area.

History of Tulsa

The first city of Tulsa was a political sub-division of the Creek

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[1]J. Paul Goode, Goodes School Atlas, Ninth Edition (New York, Chicago, San Francisco, 1953), p. 5.

[2]Tulsa Chamber of Commerce, Research Department (March 1, 1955).

[3]Tulsa Chamber of Commerce, Tulsa's Population Growth (February 9, 1950).

Nation referred to as Lochipoka Square.[4] The chief function of the area was to serve as a gathering place for the Creek Indians within the subdivision to vote on matters of state and for festivities. The township had its own law enforcement officer.

The village grew very little during the early days since, under Creek Tribal Law, once land was abandoned it reverted to the tribe. In January, 1898, the Federal Court granted a petition of incorporation and thus, on January 18 of that year, the city of Tulsa was born. The first Federal census of 1900 showed the town to be only 1,390 persons.

In 1903 the Missouri, Kansas and Texas Railroad Company was constructing a line from the village of Wybark through Turley and across the Osage Reservation to Cleveland. The Commercial Club, through successfully raising $12,000 for a bonus and persuading landowners to donate the right of way, convinced the company of the advantages of routing the railroad through Tulsa. The project was more beneficial than the Tulsans could have anticipated for, a year after the railroad had been constructed, tremendous amounts of oil were discovered at Cleveland nearby.

Tulsa then grew rapidly and the business leaders were able to persuade the St. Louis and San Francisco Railroad Company to run their westward route through Tulsa. The Midland Valley Railroad decided to locate a terminus there for a $15,000 bonus. The Atchinson, Topeka and Santa Fe brought their railroad into Tulsa when they were presented with the right of way and a sizeable bonus.

Tulsa was still at a disadvantage, however, for the oilfields were being developed on the south side of the Arkansas River, in the Red Fork

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[4]Angie Debo, Tulsa (University of Oklahoma Press, Norman, 1943).

area, opposite the city. To cope with this situation, three enterprising Tulsans constructed a toll bridge to serve the commuting oil men, and W. N. Robinson established a three-story hotel which served good food and had a bathtub!

The year 1905 saw the development of the Red Fork Field and again Tulsa accepted a challenge by establishing the First National Bank for the benefit of the new oil industry.

This was only the beginning. The 1910 census showed Tulsa with 18,182 persons and steady growth continued as indicated by the 1950 census of 182,900. The chief function of the city at present is principally providing the oil industry with some 850 oil companies or allied firms with offices there. It also serves the trade area of northeastern Oklahoma, Western Arkansas, and Southern Kansas.

Today Tulsa is again in the midst of a vast expansion program. With new industry and increasing population, the attendance at the parks and playgrounds has increased accordingly. Thus, since 1950 the Tulsa Park Department has launched a vast new improvement program with the acquisition of new areas and revamping of old. The park system is keeping pace with progress.

Physiography of the Tulsa Area

Tulsa is located in the Sandstone Hills Region of eastern Oklahoma which extends west from the Ozarks Uplift and the Arkansas Valley Region to the Redbeds plain Region and south to the Arbuckle Uplift.[5] Throughout the region the rocks, which consist of alternating strata of soft

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[5]Charles M. Gould, Geography of Oklahoma (Ardmore, 1904), p. 16.

shale and hard sandstone, either lie level or dip to the west. The main drainage is to the east. Erosion has worn the soft shales away and left the hard sandstones standing as prominent hills, which often form continuous ridges extending in a general northeast-southwest direction. Some isolated buttes may stand out on the level plain.

The site of Tulsa is located in this general physiographic area, but since it is bisected by the Arkansas River, the local physiography is altered somewhat.

The Arkansas River, cutting through limestone hills west of Tulsa, flows in an easterly direction until it reaches the 96th meridian and then turns sharply and flows in a southerly direction. The river flood plain varies from one to two miles in width and then gives way to steep sloping hills. Hence, the parks of Tulsa are affected by their geographic location within the city. This can be illustrated by Mohawk Park, located principally in the flood plain of Bird Creek which is generally of flat terrain. This area has had much difficulty with water drainage and pest control. However, due to the rich soil and numerous plants, the area has been converted into a beautiful park.

Other sites such as Union, Woodward, and Owen Parks are located in an area with sharp contrast in relief. These parks are beautiful, but maintenance is difficult and great care must be taken in the removal of trees, since the roots are valuable in holding the thin topsoil in place.

The rolling hills throughout the Tulsa area are eroded by small branch streams feeding into the Arkansas River. These slopes are forested, particularly with Post Oak and Blackjack Oak, while the flood plain has a rich and varying vegetation. This fact may be noted in numerous parks. The Riverside Drive Parkway, Newblock, Reed, Howard, and West Tulsa parks are good examples of parks in the flood plain.

The varieties of trees, shrubs, and grasses are numerous. This fact aids in planning a beautiful park area, since only small amounts of fertilizer are needed to grow almost any plant.

Woodward Park is an example of a site that was landscaped around its original drainage pattern. By leaving the trees on the hill tops and slopes the engineers could work out a system of drainage and arrangement of shrubs so as to aid the original site in appearance and prevent erosion. Another example of good use of natural terrain is Owen Park. Formerly the park had an area that was low and often held water. The park engineers excavated this area, turning it into a small lake and used rock to shore the hillside in steep places.

At the eastern limits of Tulsa the Prairie Plains begin. This area is largely flat terrain traversed by heavily wooded streams. The relief of the area is varied somewhat, due to erosion. Parks located in this area are the new parks such as East Side Park, the site at 3600 Memorial, and other sites that are not yet named. Development is still in the planning stages for seven park areas. Full advantage will be taken of the existing terrain.

It is easy to see that, with a varying terrain, Tulsa has quite an interesting park system. In Woodward Park, for instance, instead of cutting down the trees and grading the sharp bank that crossed the park, engineers used the area for a brook and landscaped the face of the hill into a beautiful rock garden. They took advantage of the low, swampy lands and feeder streams in Mohawk Park to convert them into picnic areas and lagoons. Riverside Drive Parkway, with its growth of fine trees, was converted into a beautiful drive by taking the flat terrain next to the river and landscaping it with the natural vegetation.

Climate

The Trewartha Climatic Classification places Tulsa in the humid sub-tropical climatic region (c a f).[6] Characteristics of the classification are as follows: (a) The coldest month must average below 64 degrees Fahrenheit, but above 32 degrees Fahrenheit. (b) The warmest month must average over 81.6 degrees Fahrenheit. Tulsa's average low occurs in January with a low of 37.3 degrees Fahrenheit, and the average high occurs in July with 82.5 degrees Fahrenheit. It should be pointed out that the above mentioned classification follows mean temperatures and should not be mistaken to represent extremes. The temperatures in January and February do occasionally reach zero degrees Fahrenheit while temperatures in July, August, and September till sometimes reach the 100 degree mark.

Tulsa has an average rainfall of 38.2 inches, with the largest proportions occurring in the spring and fall of the year. This fact affords the area a varied type of vegetation and allows the parks to have a luxuriant growth. February has the least amount of rainfall (average 1.5 inches) while the greatest average rainfall occurs in May (5.2 inches). This is advantageous to the Municipal Park System since heavy winter rains would cause serious leaching and soil erosion, while dryness of the soil in spring would be very damaging.

The parks are fortunate in having a mean growing season of 222 days. The fall of the year is generally long with hot, sunny days and cool nights. The average date for the first killing frost is November 3. Spring generally arrives after the last killing frost occurring on

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[6]Glen H. Trewartha, An Introduction to Climate (New York, 1954), p. 235.

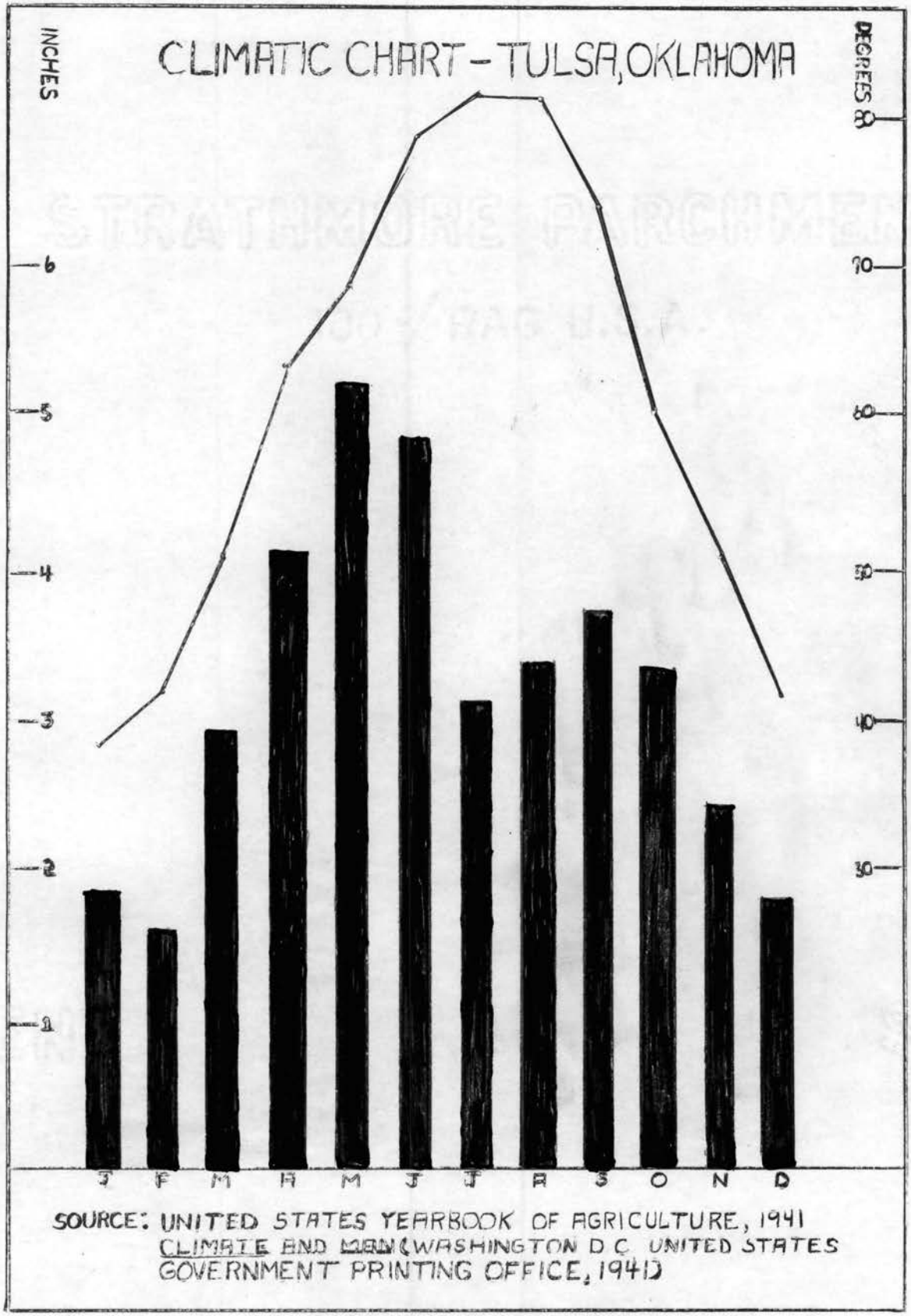
CLIMATIC CHART - TULSA, OKLAHOMA
INCHES
DEGREES
6
5
4
3
2
1
80
70
60
50
40
30
J F M A M J J A S O N D
SOURCE: UNITED STATES YEARBOOK OF AGRICULTURE, 1941
CLIMATE AND MAN (WASHINGTON D C UNITED STATES
GOVERNMENT PRINTING OFFICE, 1941)

Figure 1

March 26. The dates are subject, however, to Oklahoma's changing weather. A very late frost occurring around the first of April is not uncommon. This situation is extremely hard on flowering shrubs, and Tulsa's Municipal Rose Garden, with its 9,500 plants, is often placed in jeopardy. The fluctuating weather is very difficult for the animals, particularly the monkeys who are accustomed to a more tropical climate. In extremely cold weather these animals are moved indoors. This is the extreme, however, since the over-all climatic conditions are ideal for the animals.

The spring brings frequent thundershowers which in turn aid the rapid growth of the plant life. By the time the drier summer months arrive, plants are usually mature.

Surface winds are southerly, except during the month of February when the prevailing wind direction is from the north. February is the only month in which park attendance is not high.[7] The fact that Tulsa has 278 clear or partly cloudy days per year contributes to a good attendance at the parks, but in combination with dry southerly winds makes the evaporation factor high, making frequent heavy watering necessary.[8]

The Tulsa Park System, in keeping abreast of the seasons, plants a variety of flowers, shrubs, and trees. This is done so that the parks will have some type of greenery the year around. Usually evergreens such as cedar trees are prominent during the winter months, and flowering shrubs are abundant in the summer months.

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[7]A. O. Ziegler, Superintendent of Parks, Tulsa, Personal interview, May, 1956.

[8]The description of Tulsa's climate was prepared for the Chamber of Commerce by the U. S. Weather Bureau in Tulsa, and approved by the Bureau's regional offices.

CHAPTER II

HISTORY OF THE TULSA PARK SYSTEM

The Tulsa Park System, under the direct supervision of the Tulsa Park Department, has shared in the rapid growth of the city. Although slow in its initial stages, since the first park areas were acquired in 1909 and were not developed until 1915, the park system claims many outstanding accomplishments and has much to offer in leisure-time activities. It comprises some 50 parks with over 4,193 acres which include 28 playgrounds, five swimming pools, 26 wading pools, and 28 baseball diamonds.

The Municipal Rose Garden is truly spectacular. It contains some 9,500 plants and is the Southern Regional Proving Grounds for the National Rose Association. It won for the city of Tulsa the Better Homes and Gardens Award in 1936, an award for outstanding municipal achievement.

Mohawk Park, with 2,936 acres, is the sixth largest municipal park in the nation. It contains woodlands, lakes, lagoons, bridle paths, two public golf courses, landscaped picnic grounds, shelter houses, a polo field, an amusement area and a zoological garden. The golf courses have clubhouses, practice greens and a professional golf shop. This year a new $243,000 building is being constructed to house the zoo, and for the first time will bring all of the zoo's indoor animals under one roof. When completed it will be circular in shape and will contain

special glassed-in areas where the animals may perform. Mohawk also has a greenhouse which produces 50,000 plants a year and houses an information center which sells boating and fishing permits.

Previously mentioned are some of the physical indications of what Tulsa provides for leisure-time activities of its citizens. Not shown are the people who devote their full time to the planning, establishment, and maintenance necessary for a well-rounded program. These include the Park Director, Zoo Director, two horticulturists, a Superintendent of Operations, and a Director of Recreation as department heads. Also not included are the 100 full-time employees and some 60 part-time employees.

Land Acquisition and Physical Improvements

The history of Tulsa as an incorporated city spans some 58 years, but the development of the park system is even shorter. Even as late as 1909, Tulsa found itself with no parks or playgrounds despite its 18,000 inhabitants. In order to alleviate this condition, the city purchased two sites, one on the east side and one on the west side. The east side tract was 13 acres and was named Central Park. The park on the west side of town comprised about 25 acres and was designated as Owen Park.[1] These parks were, at the time of the installation, up to date with the latest equipment. However, two parks were not enough for a growing city. From 1910 to 1920 some 34,000 new residents swarmed in and again Tulsa found itself lacking in adequate recreational space.

Further expansion became necessary, so the city purchased a five-acre tract on the east side of the city. The new addition, known as

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[1]Clarence B. Douglas, The History of Tulsa, Oklahoma (S. J. Clark Publishing Company, Chicago and Tulsa, 1921), p. 231.

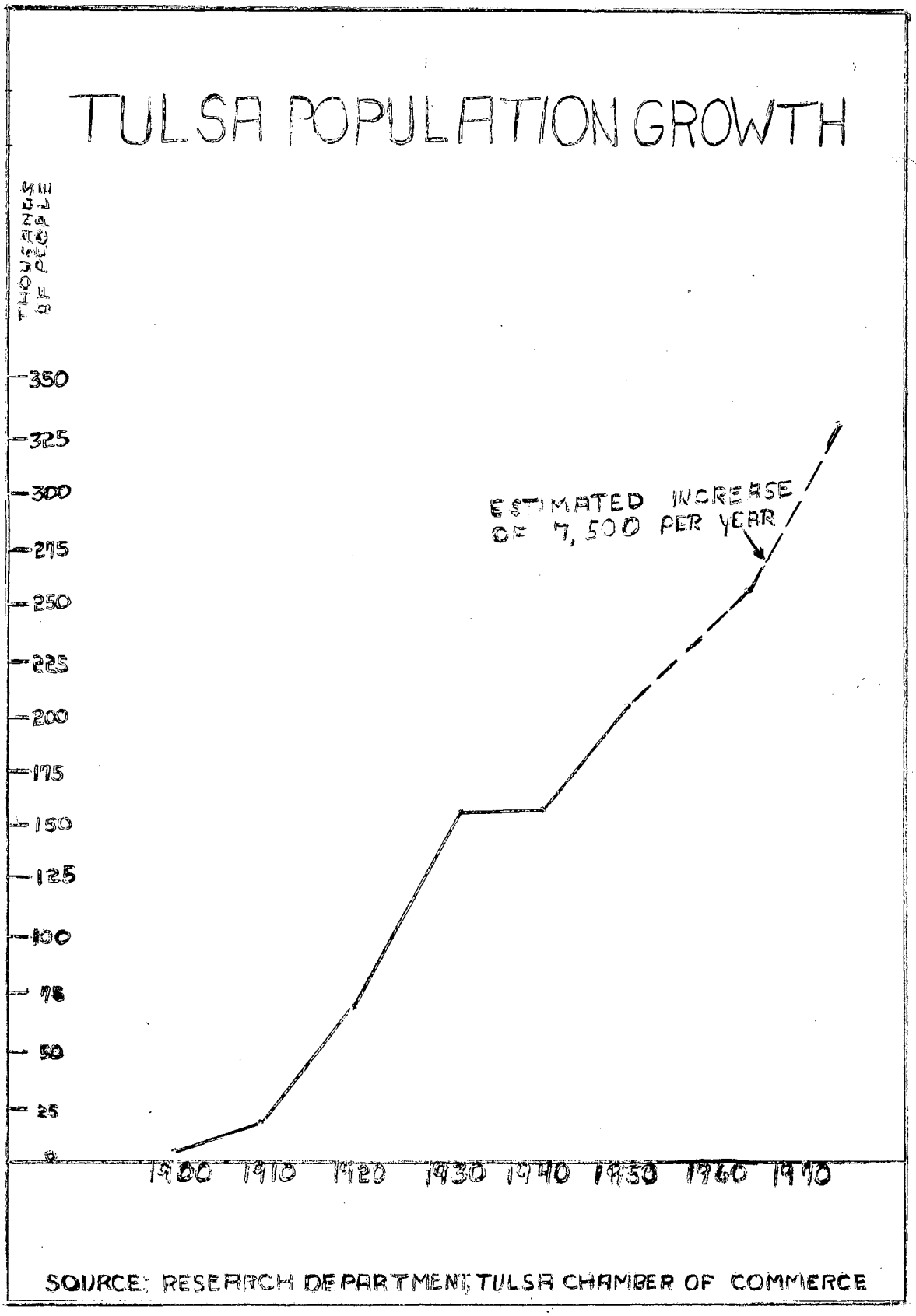
TULSA POPULATION GROWTH
THOUSANDS OF PEOPLE
350
325
300
275
250
225
200
175
150
125
100
75
50
25
0
ESTIMATED INCREASE OF 7,500 PER YEAR
1900 1910 1920 1930 1940 1950 1960 1970
SOURCE: RESEARCH DEPARTMENT, TULSA CHAMBER OF COMMERCE

Figure 2

Admiral Park, was improved with rest rooms, wading pools, tennis courts, and other conveniences. More expansion came when Frank H. Reed established a park with 29 acres in the newly annexed Red Fork area.

The tremendous growth in population continued and the city took steps to establish a system to assure adequate facilities. At this time they acquired two more park sites. One tract of land was located at the south edge of town, and contained forty acres. It was designated Woodward Park. The other tract contained two acres and was set aside as a park for the colored. It was given the name Springdale, and was located on the north side.

Tulsa voted its first large bond issue for parks in 1926 when the citizens approved $150,000 for the conversion of settling basins into swimming pools. This was the first forward step, but much had to be done if Tulsa was going to keep abreast of its growth. By 1927, Tulsa had seven parks and had just acquired the wilderness known now as Mohawk Park. All of the parks were underdeveloped and much expenditure and effort was needed for improvement.

Fortunately this was brought about. A $1,500,000 bond issue was voted in 1927 by the citizens for public park improvement. This furnished money for development of existing facilities and allowed the Park Department to purchase new areas when the need arose. The most important improvements made possible by this bond issue were centered about the development of Mohawk Park, including the construction of the zoo, golf courses, clubhouse, roads and bridges, and Woodward Park was cleared and improved.

New areas acquired were located in or near the residential sections in portions of the city that already needed more facilities. The Archer

Park contained some 4.8 acres and was located in the northeast section of town. Braden Park, with 9.4 acres, was located on the east side at Ninth Street and Alleghaney Avenue.

The five other parks were established as follows: Crawford Park with 16.6 acres was located on the north edge of town, as were Springdale Playground with 9.6 acres and Lincoln Park with 13.4 acres, which was to be the park for Negroes. The Carbondale Playground was located in the extreme south side of Tulsa near the Creek County line. This park contained only 1.9 acres, but provided a ready play area for the neighborhood. Cheyenne Playground was located in the northwest section of the city near the Osage County line and contained some 3.8 acres. Newblock Park on Tulsa's west side was enlarged to the present 127.3 acres.

In 1934 work was started on the Municipal Rose Garden at Woodward Park. The entire area was terraced, walks laid, and the park completely landscaped. It was opened to the public in the summer of 1935, and since has averaged over 300 visitors a week.

At this time, the city owned 2,974 acres of parks, Mohawk Park embracing 2,225 acres of this amount. The city also had eight miles of boulevards and 114 individual strip and center areas. Tulsa took great pride in planting these areas with shrubs and flowers where traffic would not be obstructed, making driving in some commercial areas very pleasant. One of these beautifully landscaped intersection parks is located at the corner of Eleventh Street and Boulder Avenue near the heart of the business section. The greenery provides a welcome relief from the maze of skyscrapers and the rush of traffic.

The money from the 1927 bond issue finally was exhausted by 1946.

The people then voted $300,000 for park improvement, of which $150,000 was allocated for the construction of an east side swimming pool. However, due to the cost of construction, the improvement was postponed at this time. The remaining $150,000 was used to concrete 19 tennis courts, surface roads through Mohawk Park, build a golf clubhouse, provide light for the junior baseball fields and construct concrete picnic tables and bleachers. The establishment of recreation buildings at Owen and Central Parks, a new concession stand at Newblock Park, and concrete walks at various parks were included in the project.

New Parks

In 1951, the citizens voted $2,026,000 for the acquisition of new parks and playgrounds plus enlarging the existing recreational facilities. These funds were made available in 1952 and since that time nine new parks have been acquired, encompassing 229 1/2 acres at an average cost of $1,070 per acre. The new parks were purchases in or near new subdivisions. The areas are as follows:

Anderson Park comprises 17.6 acres and is located at 28th Street North and Boston Avenue in the north central part of the city. It is situated in an area of older homes with new subdivisions immediately to the north. The area which the new park serves has not in the past been served effectively. The nearest park had been Crawford Park which lacked facilities for playgrounds, picnicking, or wading. The new park is now in the process of being developed with the construction of shelter houses and the purchase of playground equipment.

Campbell Park, containing some 22 acres is situated at 4th Street and 41st West Avenue in the Sand Springs road vicinity. This area is

an old established neighborhood, but due to the inadequate geographic distribution of parks in the area, the city decided to develop another park. The park has a new wading pool, some picnic tables, and is now in the process of being landscaped. When completed it will have tennis courts and softball diamonds among the facilities.

East Side Park, located at 7th Street and 73rd East Avenue, was at the extreme eastern edge of the city when purchased. It contains 53.3 acres and is now in the process of being landscaped. Finished last year, a new Olympic size pool is located here with bath houses and a concession stand. One of the outstanding facts about the pool is its modern underwater lighting system, a very attractive safety feature. Along with the construction of the pool and bath house was a large, ample parking lot, thus enabling the people to attend the park without congesting neighborhood streets or having difficulty finding a place to park.

Mudd Park contains 19 acres and is located at 41st Street and Pittsburg Avenue. The area that the park handles is entirely new, with building and subdivision still in progress. The park has still another advantage of being located in the area that will be traversed by the new Tulsa By-Pass. The park will then be able to serve many motorists as a picnicking and recreational area. To date, nothing is being done to develop the park or establish any facilities.

Revere Park, situated at 56th Street and South Delaware Avenue, is another new park in a new residential area. The site contains 20 acres, is traversed by a small stream, and contains many fine trees. Development of this park will be started when streets are better established in the surrounding neighborhood.

The new Turkey Mountain Park, located at 56th Street and Union Avenue, is the newest large park to be added to the park system. At present it contains 70 acres, but plans are being made to double the size.[2] When completed, the park will have a south side golf course, club house, and numerous picnic facilities. The site of Turkey Mountain Park, what is known locally as Turkey Mountain, is a heavily wooded, shallow soil area on the west side of the Arkansas River. To date, no development has been started, but when it is finished the park can easily serve all of South Tulsa. It will be easily accessible due to the 51st Street Bridge which spans the river only five blocks north of the park.

Ute Park, located at Ute Street and North Pittsburg Avenue, will serve the new neighborhoods developed, and being developed, in the northeast section of Tulsa. The site comprises 19.4 acres, with about five acres being heavily wooded and the remainder open meadows. This park is being developed this year and already has a junior baseball diamond in use.

The city has acquired many small neighborhood fields with acreages ranging from five to fifteen acres. Listed below are those which have not been developed or given names. The first group will be neighborhood playgrounds when developed and are small in size. They are: 10 acres near Apache and North Yale Avenue, 8.1 acres near the east side drainage channel, 8.1 acres adjacent to Holmes Elementary School at 4600 South Peoria Avenue, five acres near the drainage channel on the northeast side, 7.5 acres at 51st Street and Memorial Boulevard, 10 acres at 38th Street and Memorial Boulevard, 9.44 acres at Phoenix Avenue and 39th

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[2]A. O. Zeigler, Park Superintendent, Personal interview, June, 1956.

Street South. The largest park site, with 15 acres, was acquired in the new Valley View Addition and is located at 50th Street North and Utica Avenue.

Most of the new parks are being located on Tulsa's south-southeast side since this is the area of greatest expansion. North Tulsa, however, is growing, too; but the large Mohawk Park will handle much of the recreation in this area, making only small neighborhood parks necessary.

The $150,000 voted in 1946 was supplemented with $150,000 from the 1951 issue, and the above-mentioned East Side Swimming Pool, measuring 58' by 165' became a reality. A new swimming pool is being constructed for Negroes in Lincoln Park. Yahola Park is also being developed for Negroes and will be comparable to Mohawk Park in facilities.

The annual budget has been increased since more parks mean more full-time employment in the way of maintenance and recreational personnel. The budget is now $425,000 per year as opposed to early years when $85,000 was thought to be enough. The Park Department has much yet to accomplish in the way of developing the new parks and acquiring more new sites. As this study was being completed, a new 10 acre site was purchased at 3600 Memorial Drive, well out into the country.

It is refreshing that Tulsa is ahead of its growth in land acquisition rather than behind, since the latter situation would result in new parks being prohibitive in cost.

Today the Park Department has over 4,193 acres, 15 miles of boulevards, 75 center strips and intersectional parks. These can provide any type of pleasure from sailboating on Lake Sequoyah and Mohawk to a well-rounded recreational program in the neighborhood parks.

CHAPTER III

GEOGRAPHIC ASPECTS OF PARKS AND PLAYGROUNDS IN TULSA

Any city such as Tulsa, in scientifically planning the geographic and functional features of its parks and playgrounds, must take into consideration six outstanding factors before selection of a park area. These six factors are: (a) cost, (b) size, (c) function, (d) density of population, (e) maximum range of effectiveness, and (f) maximum capacity for adequate operation.

Governing Factors Concerning Cost of Park Sites

Cost is always a governing factor in selecting a site. New York City had to go to court and condemn property, raze buildings, and landscape before any small parks could be created. This procedure was very expensive, sometimes costing the taxpayers many times the original cost of property in those areas. Many other cities found it necessary to buy park sites after all available property has been purchased in a neighborhood and the cost of some parks, for the function intended, was prohibitive. Tulsa has in the past, and will continue in the future, bought sites in advance of subdivision, thus making the allocated money more effective. An example of this can be seen by plotting the new acreages. For instance, Turkey Mountain Park, comprising 70 acres, is outside the city limits as are Revere, Memorial Drive Park, and other acreages not yet named.

Size and Function of Park Areas

The size of a park depends upon its intended function. This can best be illustrated by a breakdown of the fundamental types of properties into five main categories as follows: (a) children's playgrounds, (b) neighborhood playfield parks, (c) areas in which landscaping is the predominant characteristic, (d) parkways, and (e) miscellaneous park areas.

Children's Playgrounds

These areas are principally for children five to 14 years of age and include equipment adapted to their relative height and weight. In Tulsa, examples of this type of park can be found in Crutchfield, Gary, and Cheyenne Parks. The areas include supervised playgrounds, wading pools, suitable equipment, and softball diamonds. An area is provided for children of kindergarten age and younger. These parks are not large due to their intended functions.

Neighborhood Playfield Parks

The principal function for this type of park is to provide an area for outdoor games and sports for adults. These parks, due to the different type of facilities and function, are much larger than those for the children. Examples of this type of park are: Boulder, Reed, Owen, and Braden Parks. They include facilities such as regulation size baseball or softball diamonds, tennis courts, shelters, rest rooms, and supervised play areas. These parks are large in nature with the density of the surrounding neighborhood affecting the size proportionately.

Areas in which Landscaping is a Predominant Characteristic

These parks will vary in size according to their geographical location. If the park is located within the city limits, for example, the size is usually small due to the cost of the land. The larger parks of this nature are generally found within driving distance of the city. Noted examples of such parks are the 15,080 acres that Phoenix, Arizona, has transformed into a lovely park and Tulsa's famous Mohawk Park of 2,932 acres. In many cases, these larger parks may serve more than one purpose. For example, Mohawk Park, although landscaping is predominant, also serves as a popular picnic area and has the zoo as a main feature.

Parkways

Motoring became a new form of recreation about the turn of the century. Tulsa was one of many cities that built beautiful parkways so that motorists could have beautiful scenery while enjoying the new sport. Although the city was developing a vast road system throughout Mohawk Park, the Riverside Drive Parkway was created expressly for adding to the beauty of the drive. It was started about 1920 as a memorial to those who lost their lives in the First World War. Today it is five and one half miles in length.

Miscellaneous Park Areas

Tulsa has 75 triangle and intersectional parks. These are created by the streets, their angles of intersection, and cloverleaf highways. The use of these parks vary according to size. The larger tracts, such as those situated at the west end of the 51st Street bridge, serve as roadside parks. The smaller intersecting parks, such as the one located at 11th Street South and Boulder Avenue are used as ornamental parks containing small shrubs and flowers or small grass covered areas.

Density of Population

Density of population in the various sections of town affect the size, function, and number of parks in each area. More and larger parks are, of course, desirable in thickly populated neighborhoods, and the function is determined according to the needs of each area. Tulsa is fortunate in having one acre of park area for every 64 persons. Older, more congested cities, often have much less. Greater New York City, for example, has approximately 577 persons per park acre, and Minneapolis has about 80 persons per acre.[1] The number of persons per park area does not necessarily represent equal geographical distribution. The number of persons per acre in New York City varies from 1,130 for the borough of Manhattan, to 212 for the Bronx. Tulsa, too, has been affected greatly by unequal geographical distribution of its parks. For the purpose of this study, Tulsa is divided into the following sections: (a) Northeast Tulsa, (b) Southeast Tulsa, (c) Southwest Tulsa, and (d) Northwest Tulsa.

The Northeastern section of Tulsa contains 140,532[2] residents of which 83,195[3] are children between the ages of one day and 17 years. This area has 100.9 acres of playgrounds and parks (exclusive of Mohawk Park), a ratio of one park acre for every 1,405 persons. This is divided into nine neighborhood parks with a total of 69.7 acres. Without counting Mohawk Park, this section of Tulsa is badly in need of additional

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[1]Maurice R. Davies, Problems of City Life (New York, 1932), p. 238.

[2]Tulsa Chamber of Commerce, Research Department (February 24, 1956).

[3]School Enumeration, District No. 1, Tulsa Board of Education (September, 1955).

park sites. Mohawk is considered a park for the entire population of Tulsa and the surrounding area rather than a neighborhood park.

The southeast area contains 89,286 residents of which 21,936 are between the ages of one day and 17 years. This area has three playgrounds and nine parks with a total of 149.4 acres. This means that there are 599 people for every park acre. The three playgrounds encompass 3.1 acres while the nine parks contain 146.3 acres of ground.

The southwest section of Tulsa has 18,719 residents with 6,013 children. The Park Department has 117.6 acres in this area or 160 persons per each acre of parks and playgrounds. There are two playgrounds with a total of five acres and three parks with 112.6 acres of ground.

The northwest area has 20,938 residents and 6,943 children. It has 181 acres in two playgrounds and three parks. The bulk of this acreage is contained in the 127.3 acre Newblock Park. The per capita ratio runs 116 residents for every one acre of parks and playgrounds. The two playgrounds contain 6.8 acres while the three parks have 120.5 acres.

The city of Tulsa would be lacking in adequate acreage per ratio of population if it were not for the 2,832 acres of Mohawk Park. The preceding study points out the unbalanced geographical distribution of parks and playgrounds even in the comparatively newer city.

It should be pointed out that the Park Department has attempted to off-set Mohawk Park by placing the 127 acre Newblock Park near the west side and the 70 acre Turkey Mountain Park at the south edge of town. In summary, Tulsa has a very low over-all ratio of persons per acre but needs improvement in the geographical distribution of the parks.

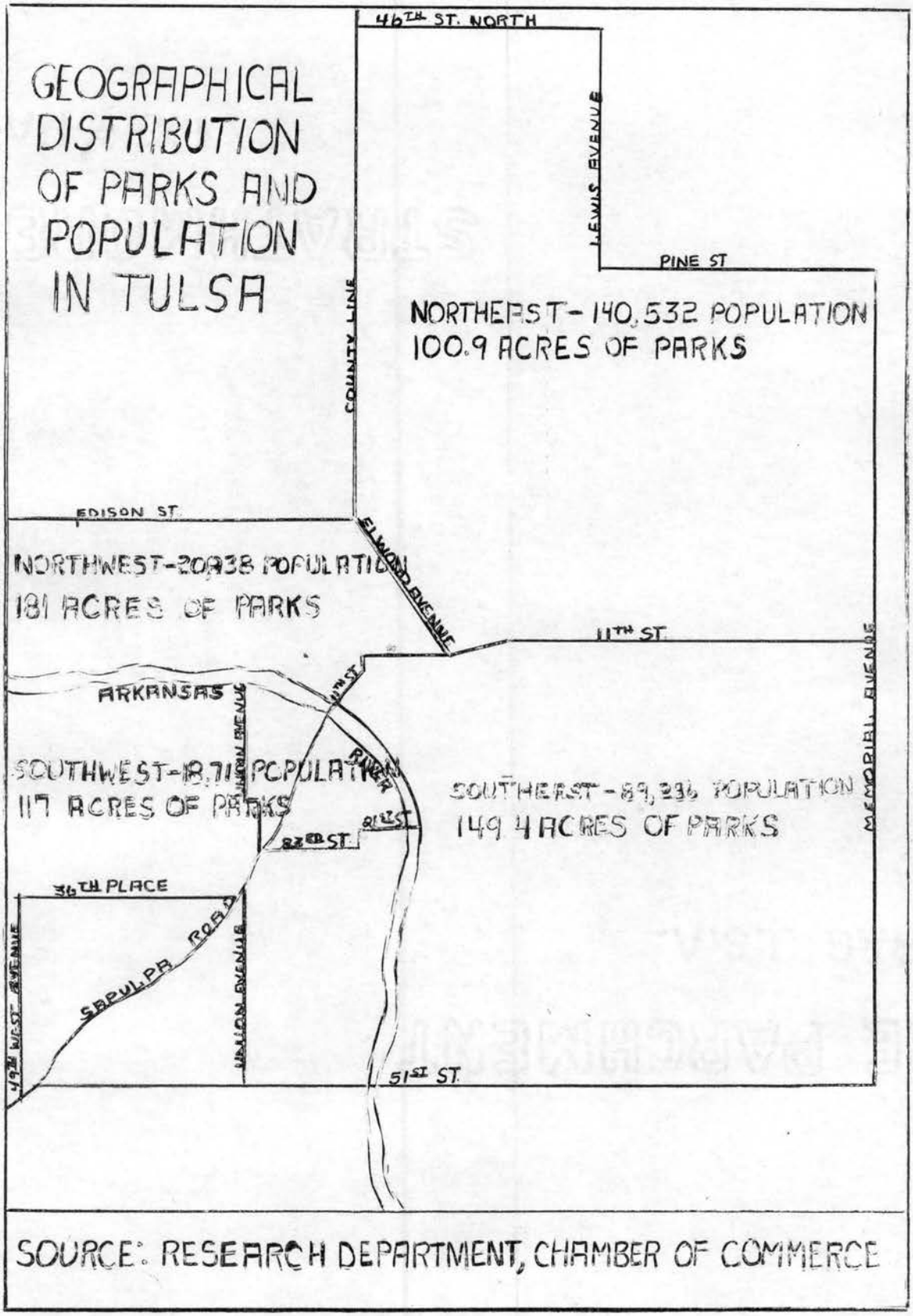
GEOGRAPHICAL DISTRIBUTION OF PARKS AND POPULATION IN TULSA
46TH ST. NORTH
LEWIS AVENUE
PINE ST
COUNTY LINE
NORTHEAST - 140,532 POPULATION
100.9 ACRES OF PARKS
EDISON ST.
ELWOOD AVENUE
NORTHWEST - 20,938 POPULATION
181 ACRES OF PARKS
11TH ST
ARKANSAS
MEMORIAL AVENUE
SOUTHWEST - 18,71 POPULATION
117 ACRES OF PARKS
SOUTHEAST - 89,236 POPULATION
149.4 ACRES OF PARKS
81ST ST
82ND ST
36TH PLACE
SAPULPA ROAD
49TH WEST AVENUE
UNION AVENUE
51ST ST
SOURCE: RESEARCH DEPARTMENT, CHAMBER OF COMMERCE

Figure 3

Ratio of School Age Pupils Per Park Acreage

It is apparent that Tulsa, in attempting to establish facilities on a geographically equitable basis, overlooked the percentage of young people. In the northeast section of the city the ratio of school age children to adults is 60 per cent, while in the northwest section and the southwest, as well, the ratio is about 33 per cent. This factor was neglected in planning the parks and playgrounds, since the northeast part of the city has more children and less parks.

Effective Range of Parks

One of the most important considerations for the location, size, and function of a park or playground is the area and the population it is intended to serve. The large Mohawk Park is an example of a park that is meant to serve more than a neighborhood. This fact is illustrated by the type of facilities it contains. The park has the only zoo, the only public golf course, and over one half of the picnic facilities established by the Park Department. This park serves as a recreational area for the city of Tulsa plus a twenty mile radius, an area with a population of approximately 300,000 persons.

In contrast to Mohawk Park is Gary Park with .5 of an acre of ground. This park, with only a small amount of play equipment, is a neighborhood park and will not accommodate more than thirty people at one time. The area it serves is not as densely populated as other areas of the city. Such a park does not need to be large or duplicate facilities found at other parks.

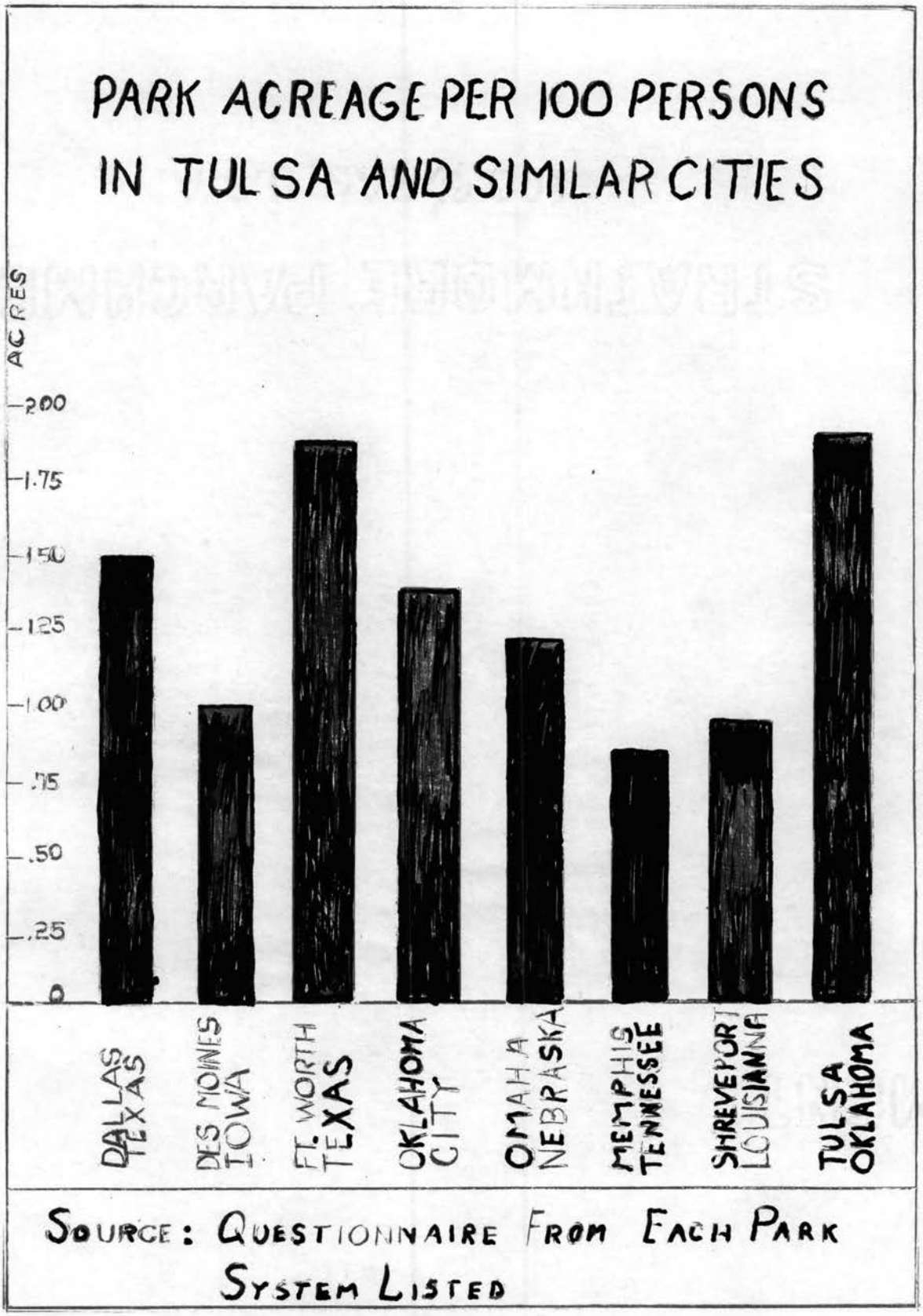
PARK ACREAGE PER 100 PERSONS
IN TULSA AND SIMILAR CITIES
ACRES
2.00
1.75
1.50
1.25
1.00
.75
.50
.25
0
DALLAS TEXAS
DES MOINES IOWA
FT. WORTH TEXAS
OKLAHOMA CITY
OMAHA NEBRASKA
MEMPHIS TENNESSEE
SHREVEPORT LOUISIANNA
TULSA OKLAHOMA
SOURCE: QUESTIONNAIRE FROM EACH PARK SYSTEM LISTED

Figure 4

Maximum Capacity for Adequate Operation

No specific rule can be laid down as to how much play space a city needs. In any attempt to arrive at a rule, a number of factors must be taken into consideration. The first is the density of population and its distribution according to age groups. A second factor would be the distance the children of different ages could travel to use a facility. Before the East Side Swimming Pool was completed in 1955, children in that section of town had to travel by city bus to the Newblock Pool, a distance of eight miles for many of them. Undoubtedly many more children will enjoy the new pool than those who could, and would, travel across town to the other pool.

The third factor is the number and types of facilities a park must have, and is determined by the number and the age groups of the people who will attend it.

To illustrate the above material, an ideal park site would be one that is not excessive in cost in relation to its worth, that is the proper size for its function, that is suitable for the density or sparceness of the population in its area, that is located where it will be easily accessible to the people it is intended to serve, and, in general, will meet the specific needs of its area.

CHAPTER IV

ORGANIZATION AND ADMINISTRATION OF THE PARK SYSTEM

The Park Department of Tulsa is governed by a Board of Park Commissioners consisting of five members, the major acting as the ex-officio member. The terms are four years in length with one member's term expiring each year. He then may either be re-appointed or a new member may take his place. All appointments are subject to the approval of the City Commission and the members must serve without pay.[1]

The Board of Park Commissioners is charged with the responsibility of the care and management of all parks and grounds, including the park buildings and equipment. The management of the Municipal Airport is also under this commission. The Board of Park Commissioners must keep accurate accounts and records of all its proceedings. A full report is submitted to the council periodically, or anytime that it is requested. The books are always open to inspection by the Mayor.

All full-time employees of the Park Department are employed by the Superintendent of the Park Department, with the approval of the Mayor and the City Commission. All employees are given civil service rating and cannot be fired without a hearing. The compensation of all employees is fixed by the City Personnel Board. Every purchase for the parks must be made in accordance with the budget as approved by the City Commission and the Mayor.

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[1] Charter of the City of Tulsa, Article V, Section 1.

General Organization and Administration

An organization the size of the Tulsa Park Department must be subdivided into working sections. A total of six sections with department heads are administered by the Park Superintendent. He, in turn, is responsible to the Park Board for the efficiency of the department. Included in the six sections are Forestry, Horticulture, Operations, Recreation, Rosarium, and Zoological Departments

Forestry

The forestry section is responsible for the upkeep and maintenance of all the different varieties of trees throughout the parks, parkways, and boulevards. The work of this section is divided into four phases: (1) combating insects and diseases, (2) inspections, (3) planting, and (4) pruning.

The Forestry Department is responsible for the control of any disease or insects that might harm park trees. It is their duty to start immediately to combat these as soon as they are detected. Among the most effective pieces of equipment is a jeep with a spray mounted on it. With this equipment, park workmen are able to move about freely in the parks to accomplish their work.

Constant vigilance is the price that must be paid for the groves of beautiful forest trees throughout the Park System. Regular inspection schedules are maintained to examine the trees in different areas to ascertain their needs in regard to pruning, location, and their nearness to the sewers. The latter is particularly true at Reed Park, where the roots of trees have in the past stopped up the drainage of the wading pool.

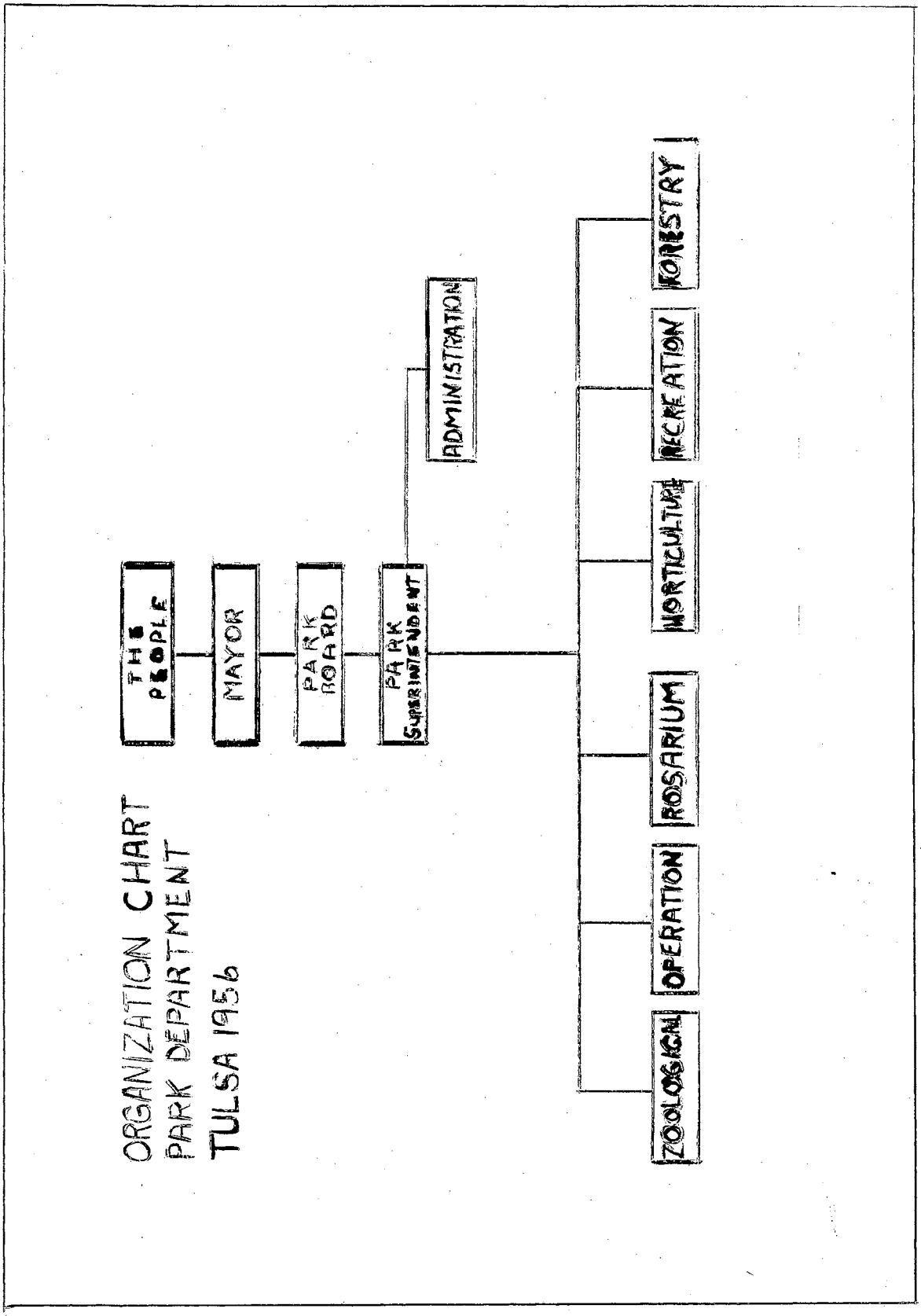
ORGANIZATION CHART
PARK DEPARTMENT
TULSA 1956
THE PEOPLE
MAYOR
PARK BOARD
PARK SUPERINTENDENT
ADMINISTRATION
ZOOLOGICAL
OPERATION
ROSARIUM
HORTICULTURE
RECREATION
FORESTRY

Figure 5

While almost every park in Tulsa has an original stand of majestic old trees, planting is sometimes necessary to assure universal coverage. Much planting still is necessary since the local inhabitants like a variety of trees and shrubs in their parks. Another responsibility of the planting crews is to replace any trees that have been destroyed. This was done recently along the Riverside Drive Parkway where a fire destroyed many trees and replanting was necessary to preserve the beauty of the area. Thus the planting program is vitally important.

Pruning is necessary in the city since many highlines are in evidence. If the trees become top-heavy, they are easy prey to heavy winds. The pruning is usually undertaken in the late fall after the sap goes down in the trees or in the early spring before the sap rises.

Horticulture

The Horticulture Department has ten full-time employees and two full-time horticulturists. It is charged with providing grasses, trees, flowers, and bushes necessary for the Park Department. Among their duties is the operation of the city greenhouses which contain a variety of rare flowers and plants. The Horticulture Department grows some 50,000 plants yearly for the different parks of the city and the Municipal Airport.

Located in the greenhouse at Mohawk Park are many plants of a tropical nature. This greenhouse is the object of much interest during the school year when classes tour such places of interest.

The Tulsa Rose Garden, with its variety of over ten types of trees and 9,000 rose plants, is one of the outstanding accomplishments of the Horticulture Department. During a week, attendance has reached over

3,000 persons. The Rose Garden has an over-all attendance of 300 per week during the entire year.[2]

Operations

The largest of the departments is the Operation Department which encompasses maintenance and general construction. It has 30 of the 110 full-time employees. Among its most important functions are:

1. General Maintenance

a. Mowing and trimming

One of the most difficult jobs the Park System has is keeping its 4,193 acres mowed and trimmed properly. Although the regular crews are augmented with part-time summer help, it is quite a task to keep the grass cut back from the curbs and walks. Each park must be mowed not less than once every two weeks. During winter months these full-time employees are utilized for tree removal and general repair work.

b. Watering

Due to the abundance of plants and shrubs, the watering crews are kept busy during the summer months. A continuous watering program is carried on at the golf course and on all flowers and shrubs.

c. Miscellaneous Activities

These activities include the cleaning and repair of rest rooms, policing of grounds and, during the winter, the sanding of walks when deemed necessary.

2. Repair and Construction

One of the biggest factors is the upkeep of the buildings. To keep the facilities in constant repair, the park system must use a crew

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[2]Leonard Kennedy, Rosarium Manager, Personal interview (May, 1956).

Figure 6. Activities in New Block Swimming Pool and Central Park.

that can accomplish anything from plumbing to minor construction work. An example of this would be at Reed Park in Red Fork where two brick pillars were knocked down by a youth with a tractor. The maintenance crew, in a very short time, reconstructed the two pillars and repaired the damage.

3. Police Protection

Since the city cannot afford police protection at all the parks, they use the police they have to rove from park to park checking facilities. Only in Mohawk Park is there a full-time policeman assigned. Often, the Park Department will co-operate with the school and use school police to keep an eye on the parks. This is particularly true in the spring when much vandalism is directed toward park equipment.

4. Trash and garbage removal

The removal of trash from the parks is on a daily basis during the summer and winter months. It is necessary during the summer, however, to double the size of the crews, since attendance increases greatly during the summer months.

5. Equipment maintenance

The Park System has a variety of equipment ranging from trucks and tractors to mowers. It would be prohibitive in nature for the Department to hire all repair work done at local business concerns due to the cost. Therefore a garage is maintained at Newblock Park for this type of repair work.

Recreation

The city recreation program of Tulsa is placed, unlike many cities, under the control of the Park Department, headed by a recreation director. This department has the job of providing challenging recreation

Figure 7. Activities at Tracy Park Wading Pool.

for young and old alike in all sections of the city. An entire chapter is devoted to recreation later.

Rosarium

The Rosarium, or the Tulsa Rose Garden, is a part of the Tulsa Park Department. It contains over 9,000 plants in a 4.45 acre setting of formal gardens and has three full-time employees. The plants are collected from all over the United States and thus are subject to different climatic conditions. The employees must mulch the roses every year to insure proper protection against the cold winters and the hot dry summers. Pruning occurs after the first frost in the fall of the year.

During the late spring frost in 1955, the Rose Garden lost over 1,200 plants and new plants had to be set out in their places. The Rose Garden has six reflecting pools that must be maintained at all times, plus small areas of grass. Also included are many different varieties of trees which border the garden area.

During the summer months, the garden is watered constantly and is sprayed for insect control every ten days. It is a full-time job keeping the area trimmed, weeded, watered, and sprayed.

Zoological Department

The Zoological Department is responsible for the feeding and maintenance of the animals in the Mohawk Zoo. Its purpose is to provide animals not common to Oklahoma so that people may have an opportunity to see what they are like. The Zoo tries to provide backgrounds similar to the native habitats for the edification of the people as well as for the comfort of the animals. The zoo is discussed fully in another chapter.

CHAPTER V

MOHAWK PARK

Tulsa's Mohawk Park, which encompasses some 2,832 acres, is the most complete municipal park in Northeastern Oklahoma. Because of its varied facilities and natural beauty, it attracts around 325,000 visitors a year. It is impossible to know exactly how many visitors come to the park, since there is no central gate at which the count may be taken.[1]

In a 50 mile radius from the park, however, there are 560,000 persons, according to the 1950 census, all within easy driving distance.[2] The largest number of visitors usually come in the spring and early summer. The spring is a particularly popular time of year, since many of the schools have picnics and "Senior Day" activities at that time. The months of December and January are the two months of least attendance at the park due to the severity of the weather.[3]

General Description

The park is located at the northeast edge of the city, beginning near North Harvard Street west of Sequoyah Lake. It extends to the east, along Flatrock and Bird Creeks to Highway 75. From Highway 75 the park continues south to the Atchison, Topeka, and Santa Fe Railraod, thence back to Park Road, south of Mohawk Lake

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[1] A. O. Zeigler, Park Superintendent, Personal interview (June, 1956).

[2] Tulsa Chamber of Commerce, Research Department.

[3] A. O. Zeigler, Park Superintendent, Personal interview (May, 1956).

The terrain is a broad level plain traversed by many small feeder streams which are heavily wooded. The type of trees found in the forested areas include elm, hackberry, burr, red, pin and water oak, sycamore, hickory, walnut, and groves of pecan.[4]

With this variety of trees, the area was considered a natural park site when it was acquired and therefore needed very little landscaping. One problem that required attention was the flooding of lowlands by Bird Creek. It would generally overflow its banks at least once a year and inundate much of the area. This would rule out the use of much of the park, particularly the Bridle Trail and Polo Fields. To combat this situation the Park Department constructed a levee eight feet high for two miles along the south bank of Bird Creek. This stopped the flooding permanently.

The heavy forest and abundant water supply gives rise to many types of flora. Some of the most common are wild blue phlox, golden ragweed, sipelwort, violets, wild strawberries, and daisies.[5] Fauna, too, is in abundance with oppossums, raccoons, mink, muskrat, rabbit, fox and grey squirrel, quail, ringneck pheasants, and many varieties of duck. These animals find an abundance of natural foods in the dense parts of the forest. Some of these areas are so dense that once when the zoo lost a cow elk, it was three years before she was found.

The Mohawk Park has an abundance of fish in its ten miles of lagoons and two lakes. Some of the more common species are bass, crappie, and perch which were placed there by the State Fish and Game

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[4]Hugh Davis, From Wilderness to Park (Tulsa, 1930), p. 4.

[5]Ibid.

Commission. Fishing as a sport, however, has declined in the last few years since large lakes were constructed in Eastern Oklahoma.

Park Facilities

Mohawk Park, being the sixth largest municipal park in the nation, has a wide variety of interesting facilities. The city acquired the site in 1924 for the construction of a lake to receive water by gravity flow from Spavinaw Lake 60 miles northeast. The lake took about 400 acres with the remaining acres being landscaped for a park and a zoo.

One of the first facilities to be developed was the picnic areas. They were constructed along the lagoons all over the park so that automobiles would not congest one area. Today there are 100 picnic tables and six shelter houses in the park, with more being added annually.

A facility that is well suited for the heavily wooded areas of the park is the bridle trail. The Roosevelt Bridle Trail, completed in 1930, winds for four miles from the stable through meadows and into the deep underbrush. The stable is operated as a concession on a lease basis.

Located on the western side of the park is Lake Sequoyah and Lake Mohawk. Together they hold 2.1 billion gallons of water, a 50-day supply for Tulsa. The main purpose of these lakes is to provide the city with water. However, they have great value as recreational areas as well. With many Tulsans being avid sailboating fans, the city started selling boating permits shortly after the lake was opened. Today the lakes are the scene of all types of aquatic sports from water skiing to sailboat racing.

A more passive type of recreation practiced at the lakes is fishing. Although the large lakes in the eastern part of the state tend to draw

the majority of fishermen, it is still a popular activity at the local lakes for those who do not like to travel long distances. The principal types of fish are perch, catfish, and bass.

The lagoons, some ten miles of them, are very popular as recreational areas as well. The lake keeps the water level in the lagoons and thus affords boating for those who care for it. The boating concession has been operated on a percentage basis. At the present, the lagoons have been allowed to drain so that rubbish might be removed. In the past the lagoons were very popular fishing areas. However, due to the picnic tables being located along the banks, the boating in the lagoons, and other distractions the fishermen have preferred to seek out more secluded areas.

Among the other facilities is one 36-hole golf course complete with club house and year-round professional golf shops. In the process of being constructed is another 36-hole course in the same area. A new $125,000 club house is soon to be started and will make Tulsa's Municipal Golf Course one of the most modern in the nation. Also included in the facilities are two full sized polo fields and over 20 miles of hard surfaced roads throughout the park.

Zoological Garden

The Mohawk Zoological Garden was founded in 1930 with some 150 various animals and migratory birds. It has grown until today it is one of the largest and most complete in the state, containing 338 animals of 42 species. Also included are the George W. Morris Zoologist collection, the largest privately owned in the United States, and the large natural history collection of Eugene Mott.

The zoo attempts to accomplish two important objectives in its program. The first purpose is to educate the younger generation to the many types of animals, both wild and tame, in our country and abroad. This is accomplished in two phases. The first phase is the display of the animal together with a tablet explaining its type of habitat, the most effective way. The second phase is lectures to the schools and civic groups about the animals. To create more interest, the lecture is augmented by motion pictures to illustrate it. The zoo director gives over 50 lectures a year plus utilizing the display boards at the

TABLE I

LARGER ANIMALS REPRESENTED IN MOHAWK PARK ZOO IN 1956

Animal	Number
Alligators	4
Bears	8
Bison	6
Cattle	7
Coyote	2
Deer	7
Elephant	1
Goats	12
Leopards	3
Lions	6
Llamas	4
Mules	2
Ponies	7
Tigers	2
Timber Wolves	2
White Bearded Gnus	2
Zebras	1

Source: A. O. Zeigler, Superintendent of Parks, Tulsa Park Department, Personal interview (May, 1956).

schools. It is felt that if the student knows more about the animals plus what its appearance is, interest will be stimulated in the zoo.

The second purpose is to give the residents of Tulsa a form of passive entertainment which the entire family can enjoy. The concession stands operated in the zoo area add to the pleasure of the visitors and assist the park in obtaining more money for operational purposes.

It is felt by Mr. Zeigler that a zoo, being a special attraction, will draw many people that might not otherwise use the park facilities.

Animal Acquisition

The program of animal acquisition has slowed down temporarily for the zoo. Outside of a gift of an elephant from a local civic group and a raccoon from the badly harassed Cushing Police Force, the number of new animals acquired has been almost nil. Each year a percentage of the budget is set aside for acquiring new animals, but due to the rising cost of operation, the money has been diverted for other purposes.[6]

The new building, due to be completed this fall, calls for the addition of sea lions, a chimpanzee as a companion to the one already owned, two gorillas and another elephant. Mr. Zeigler pointed out that the monkeys had to be replaced every four to five years, since in maturity they become incompatible and fight among themselves. A continuous acquisition plan must be carried out if the zoo is to maintain a good standard. Mr. Zeigler has requested an increase in this year's budget of $200,000 in order to meet some of the more urgent needs.

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[6] A. O. Zeigler, Park Superintendent, Personal interview (June, 1956).

COMPARISON OF TYPES AND TOTAL NUMBERS OF ANIMALS IN ZOOS OF TULSA AND SIMILAR CITIES

	BEARS	CAMELS	ELEPHANTS	KANGAROOS	LEOPARDS	LIONS	MONKEYS	TIGERS	OTHERS	TOTAL NUMBER	RANK
DES MOINES IOWA	0	0	0	0	0	0	0	0	0	0	8
FORT WORTH TEXAS	7	2	2	1	1	3	19	2	4	41	7
OKLAHOMA CITY OKLAHOMA	18	3	1	5	1	2	40	1	67	138	3
OMAHA NEBRASKA	6	0	0	0	0	2	17	0	27	52	6
MEMPHIS TENNESSEE	22	2	2	5	4	4	134	2	725	900	1
SHREVEPORT LOUISIANNA	6	0	0	0	0	0	20	0	30	56	5
TULSA OKLAHOMA	8	0	1	0	3	6	75	0	245	338	2
WICHITA KANSAS	7	0	0	0	4	4	22	1	26	64	4

SOURCE: QUESTIONNAIRE SENT TO EACH SUPERINTENDENT OF THE PARK SYSTEM LISTED

Feeding of Animals

With such a wide variety of animals, feeding them is a major problem. The types of food consumed range from apples to horse meat, all of which is either grown or purchased locally. All the special types of foods are purchased locally, such as fish, horse meat, apples, lettuce, and fruits and vegetables. The stores, where purchases are made, are usually selected by competitive bids unless there is no choice.

The vast expanse of Mohawk Park, with its many open meadoes, allows the Park Department to raise much of the food needed at the zoo. This year, for instance, 15 acres of alfalfa, 60 acres of hay, and 30 acres of corn are being harvested. Oats are always grown, but the amount this year is less than five acres, not enough for a year's supply. Some of the oat supply must be purchased locally this year.

Banding Station

The Oklahoma State Fish and Game Commission designated Mohawk Park as a wildlife refuge to protect tame, or partially tame, animals against hunters. To further implement the importance of Mohawk as a game refuge, the Federal government established a banding station there as well. To date, over 18,000 ducks have been banded, making it one of the most important stations in the United States. Ducks banded at Mohawk have been found from northern Canada to Mexico.

Personnel

The personnel around the zoo are thoroughly trained before they can work with the more ferocious animals. To do so requires time and the

experience of knowing the temperament of each type of animal. Since the zoo is very short of personnel, this training is often cut to the minimum.

One of the most exacting feats is the preparation of daily feedings by the personnel. They must fit the feedings to the diet of each animal and prepare enough for one feeding only.

The Mohawk Zoo has only six full-time employees, and during the winter months, when animals are taken from their cages to the barns, the force is taxed to the utmost.

New Construction

Being constructed in the zoo area is the new $260,000 display building, which will be 350 feet in length and 75 feet wide. It will contain glass cages for gorillas, monkeys, and chimpanzees. Plans also include a new sea lion pool, baboon island, and an elephant house. The new building with its cages will insure the safety of viewers and the animals as well, since the people will not be able to feed or touch the animals. When the building is completed, it will be one half the over-all size planned for the future when the budget is expanded for the zoo.

CHAPTER VI

COMPARISON WITH OTHER CITIES

A comparison of the Tulsa Park System with other city systems entails many factors besides total acreages and annual budgets. Population, geographic location, vegetation, terrain, and economic factors are some of the things which affect a park system. To accurately evaluate a community's progress those cities used in comparison should be equal in all the factors mentioned. This is impossible, however, since the cities filling most of the criteria are smaller in population than Tulsa, since Tulsa has grown rapidly in relation to its age. Tulsa's park system is only 47 years old, while those of many other cities may be as much as 200 years old. Thus, the writer, using the results of the questionnaire sent out by Leslie R. Davis, will utilize the information to attempt an evaluation of Tulsa's standing.[1]

Since there are no cities equalling all the factors for absolute comparison, Mr. Davis sent questionnaires to cities within a 500 mile radius of Oklahoma City. The cities varied in population from 100,000 to 500,000 people. Since Tulsa had a population of 182,000 in 1950, some of the cities used are larger and some smaller. It is felt that the population of either larger or smaller cities reflect proportionately in the evaluation of the park systems and will not alter the over-all

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[1] Leslie R. Davis, "The Oklahoma City Park System" (Unpublished Master's thesis, Oklahoma A. and M. College, 1955).

results. To strengthen the evaluations, most comparisons are made on a per capita basis such as dollars per capita or park acreage per 100 people.

The cities, ranging in population, according to the 1950 census, from 102,000 for Little Rock, Arkansas, the smallest, to 432,000 for Dallas, Texas, the largest, in the 500 mile radius. Questionnaires were sent to ten cities, including Dallas, Texas; Des Moines, Iowa; Fort Worth, Texas; Little Rock, Arkansas; Omaha, Nebraska; Memphis, Tennessee; San Antonio, Texas; Shreveport, Louisiana; Oklahoma City, Oklahoma; Wichita, Kansas; and Tulsa, Oklahoma.

From the questionnaires, information was received from eight of these cities. Oklahoma City's information was available by personal interview. It must be pointed out that all information received does not and cannot give the complete situation of all cities. It does, however, point to certain trends. Of the cities receiving the questionnaires, only Little Rock, Arkansas, and San Antonio, Texas, are not represented.

General Comparisons

The jurisdiction of the park departments varies from city to city, therefore a comparison of the realms of responsibility of each city's system is made. In Table II, Tulsa, like Wichita, has the parks, recreation, and airports under the Park Department. The responsibility in regard to the airports is administrative with the airports having their own ground maintenance organizations. Fort Worth maintains the recreation department separately from the park system. Des Moines, Iowa, maintains the municipal cemeteries in addition to the recreation and

TABLE II

PARK DEPARTMENT RESPONSIBILITIES

City	Facilities under Park Department Control
Dallas	Parks and recreation
Des Moines	Cemeteries, Parks and Recreation
Fort Worth	Parks
Oklahoma City	Parks and recreation
Omaha	Parks and recreation
Memphis	Parks and recreation
Shreveport	Parks and recreation
Tulsa	Parks, recreation and airports
Wichita	Parks, recreation and airports

Source: Questionnaires sent to Park Superintendents.

park department. The other cities place the parks and recreation program under the supervision of the Park Department.

Park Areas

To justify the various differences in population, it was decided to use a per capita basis of 100 persons per park area. The size of the eight park systems varied from .76 acres per 100 people in Memphis, Tennessee, to 1.81 acres per 100 people in Tulsa. Fort Worth, Texas, with 1.77 acres per 100 people is a very strong second to Tulsa, followed by Dallas with 1.45 acres per 100 people. The other extreme is represented by Shreveport, Louisiana, with .79 acres per 100 people, and Des Moines, Iowa, with .92 acres per 100 people barely overshadowing

Memphis in per capita park acres. Oklahoma City, omitting the 6,865 acres that make up Lake Heffner and Lake Overholser, ranked fourth with 1.30 acres per 100 persons. The over-all average seems very good for Tulsa in per capita park acres, but other factors remain to be considered.

Park Budget

The park budget is always a factor in the effective operation of any park system and can indicate many things. For instance, it can indicate the effectiveness of operation and purchasing power by its amount. The budget also may be varied by the size of the parks. It is much more expensive to operate 100 one-acre parks than one 100-acre park as far as equipment and maintenance are concerned. Therefore, the per capita spending may well tell the effectiveness of a city's planning program for park expenditures.

Tulsa's annual park budget is $4,425,000 and represents a very low $1.81 per capita expenditure. This places Tulsa with Fort Worth, Texas, and Omaha, Nebraska, as the three cities having less than $2.00 per capita. The per capita expenditure of Dallas, Texas, in contrast, with $4.25 per person and Memphis, Tennessee, with $3.42 ranked first and second. They were followed by Oklahoma City with $3.29 per capita, almost twice the amount Tulsa spends. It would seem that Tulsa could well afford to spend more money per capita than many of the less prosperous cities.

Zoological Gardens

The Tulsa Zoological Garden is now experiencing an increase in both physical facilities and total number of animals. It is already noted

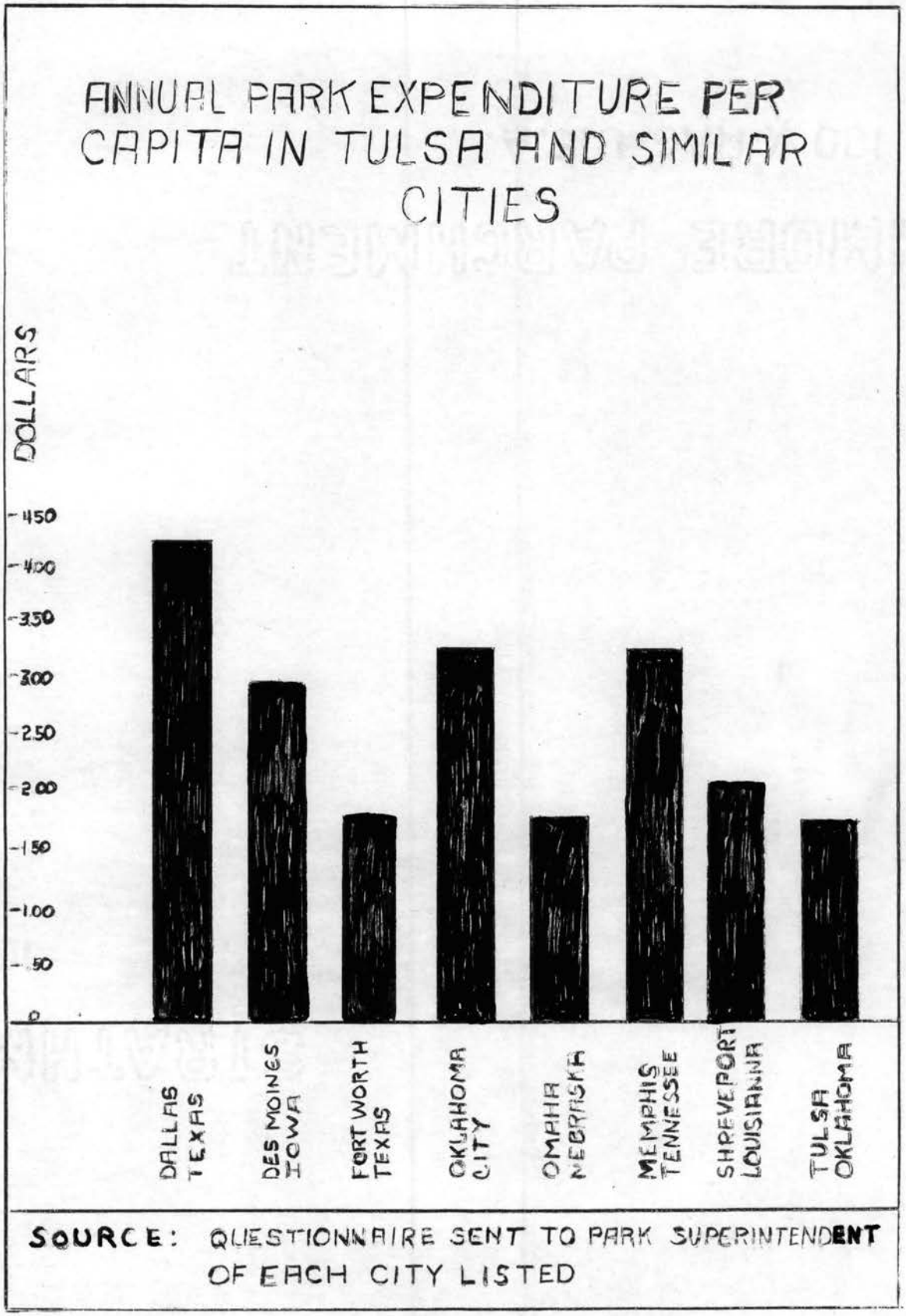
ANNUAL PARK EXPENDITURE PER CAPITA IN TULSA AND SIMILAR CITIES
DOLLARS
450
400
350
300
250
200
150
100
50
0
DALLAS TEXAS
DES MOINES IOWA
FORT WORTH TEXAS
OKLAHOMA CITY
OMAHA NEBRASKA
MEMPHIS TENNESSEE
SHREVEPORT LOUISIANNA
TULSA OKLAHOMA
SOURCE: QUESTIONNAIRE SENT TO PARK SUPERINTENDENT OF EACH CITY LISTED

Figure 9

for its particularly large collection of 200 birds. While the Tulsa Zoo has numerous animals, it is not equal to Oklahoma City's Zoo collection or Fort Worth's variety of animals. For instance, it has no lion, kangaroo, or camel. The Tulsa Zoo, on the other hand, in total number of animals is second only to the zoo of Memphis, Tennessee, due to the large number of monkeys and birds.

It may be pointed out that Tulsa has acquired its zoo since 1930. This makes it one of the youngest zoos represented. Another factor to take into consideration is that Tulsa is the second smallest city represented in the questionnaires. Thus, it compares favorably with cities that are older and larger.

Recreation Program

The recreation program for each city varies according to its weather conditions and local preferences. For example, ice skating would not be practical in Tulsa as an outdoor recreation, while Des Moines or Omaha might have a large following in this sport. The only way a comparison may be made is to compare the physical assets of each city's recreation program.

Adult Swimming Pools

The numbers of adult swimming pools available in the various cities finds Tulsa tied with Des Moines, Fort Worth, Shreveport, and Memphis in having about the average number of swimming pools. Wichita, with seven, rated the highest. Tulsa, however, would rate more favorably if the wading pools were counted as the city has 26 of them. The idea behind Tulsa's arrangement of swimming pools is that the small children should

be provided with safe pools for their water play. The city has many private pools as well; however, it is lacking in proper geographical distribution of public pools. The city could use at least three more pools, one on the extreme south limits of the city, and two in the north and northeast sections of town.

Golf Courses

Memphis, with six public golf courses, rated first in actual number of courses, while Tulsa, Shreveport, and Des Moines, with two public courses each, were rated last. It is brought to the attention of the reader that Memphis has a population of 396,000 as opposed to Tulsa's

TABLE III

COMPARISON OF RECREATIONAL FACILITIES IN TULSA AND SIMILAR AREAS

City	Number of Swimming Pools	Golf Courses	Tennis Courts
Des Moines	5	2	6
Fort Worth	5	4	20
Oklahoma City	4	3	25
Omaha	3	4	29
Memphis	5	6	30
Shreveport	5	2	22
Tulsa	5	2	36
Wichita	7	3	21

Source: Questionnaire sent to Park Superintendent of each city.

182,000, and thus the number of golf courses should be considered in relation to the population of each city. It seems that Tulsa's two

golf courses are adequate for the present, since Tulsa has many private courses as well.

Tennis Courts

Tulsa rated an easy first place in the number of hard-surfaced tennis courts, eight of these having lights for night playing. The courts are well distributed geographically as well. Very few of the Tulsa parks are without tennis courts since it is a very popular sport in this city. Ranking second and third are Memphis with thirty courts and Omaha with 29 respectively. Tulsa indeed has adequate facilities for tennis, especially since it has a number of other courts which are not hard-surfaced and, therefore, are not counted in the comparison.

While it would be impossible to draw final conclusions from the questionnaires alone, it is possible to consider the general aspects of the park systems from the facts gathered. Comparisons were made between Tulsa and seven other cities to give the reader some idea what is being done in the Midwest and Southwest by various municipalities, and how Tulsa rates in the progress of its park system. From the facts presented, it can be seen that Tulsa compares favorably with the other cities. It appears that Tulsa could be rated in the top one third of the cities discussed. The main project that Tulsa should undertake in order to improve is the construction of additional swimming pools.

CHAPTER VII

RECREATIONAL PROGRAM

With the end of the frontier period and the growth of cities, the average family began to find that its members had more leisure time. Since the countryside was well settled and urban areas were developed, they sought park and other recreation areas to pursue hobbies, sports, and other activities. The cities, therefore, at this time began to realize that areas must be provided for recreational outlets. About 1900, communities started to provide some playgrounds in industrial areas. The principal function of these playgrounds was to serve as meeting places where children in the surrounding neighborhoods might have their recreation and, at the same time, stay off the streets.

This plan was effective only in part since some playgrounds were in financially distressed areas and therefore the children lacked equipment. The only recreation provided by the parks was so limited that it often led to the destruction of existing buildings, shrubs, and playground furniture. The next advancement for the cities was to provide more equipment and someone to look after it as well. Thus began the first city recreational program as we know it today.

In the years to follow, particularly in wartime, recreational facilities became taxed to the breaking point and adequately trained supervisors became difficult to find. At present this condition had become somewhat improved due to commercial recreation institutions of

higher learning establishing curricula for the training of recreational supervisors.

Tulsa's story of supervised recreation is somewhat different from most American cities because of its comparative youthfulness. The city was busy trying to establish parks in the late 1920's and was not so concerned about supervised recreation. The recreation program as we know it today was actually begun in 1940 with the employment of part-time summer help. It has advanced, until today the city hires 60 part-time employees for this program, and six full-time employees as well. The latter are a recreational director, a sports director, and four recreational building supervisors.[1]

The physical facilities embrace 26 supervised playgrounds and five summer recreational buildings. Scheduled are two more recreational buildings to be constructed this fall. There are 23 wading pools, five swimming pools, one golf course, 40 tennis courts (eight of them lighted), five softball and 15 baseball fields. These facilities are augmented by 15 school practice fields for softball and baseball during the summer months and three high school gymnasiums during the winter months.

The recreational program has had outstanding results. During the summer of 1955, the playgrounds alone had an attendance of 125,140 while the baseball and softball teams had some 1,260 participants each. With such outstanding interest, it is no wonder that Tulsa was chosen as the host city for the National Softball Tournament in 1955.

Mr. George Taylor, Director of Recreation, explained the objectives to be achieved as follows: (a) adequate distribution of facilities for

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[1]George Taylor, Director of Recreation, Personal interview (April, 1956).

all ages, residential localities and social groups; (b) instruction in leisure-time skills; (c) program planning by participants; and (d) individual activity, home recreation, and city-wide activities.

TABLE IV

PARKS WITH RECREATIONAL BUILDINGS

Park	Location	Acreage
Central	6th Street and Peoria Avenue	11.7
Dawson	Ute Street and Maplewood Avenue	1.4
Lincoln	Virgin Street and Madison Avenue	13.4
Newblock	Union Street and Sand Springs Road	127.3
Owen	Edison Street and Quanah Avenue	24.9
Frank H. Reed	41st Street and Union Avenue	29.2
Springdale	Pine Street and Zunis Avenue	9.6

Source: George Taylor, Recreation Director, Personal interview (may, 1956).

To illustrate the preceding objectives, Mr. Taylor explained that the city had acquired seven new areas amounting to over 200 acres in or near new residential developments. As the new neighborhoods are formed, the prospective playground area also will be established. Steps are being taken to provide facilities for all age groups. For instance, to cope with the problem of small children running into playground equipment, the city has installed new green striped equipment. This equipment is attractive and much easier for the children to see. The equipment also has "limited" height variations for different age groups.

The second phase of the program, that of the instruction and development of leisure-time skills, has been very well developed. The

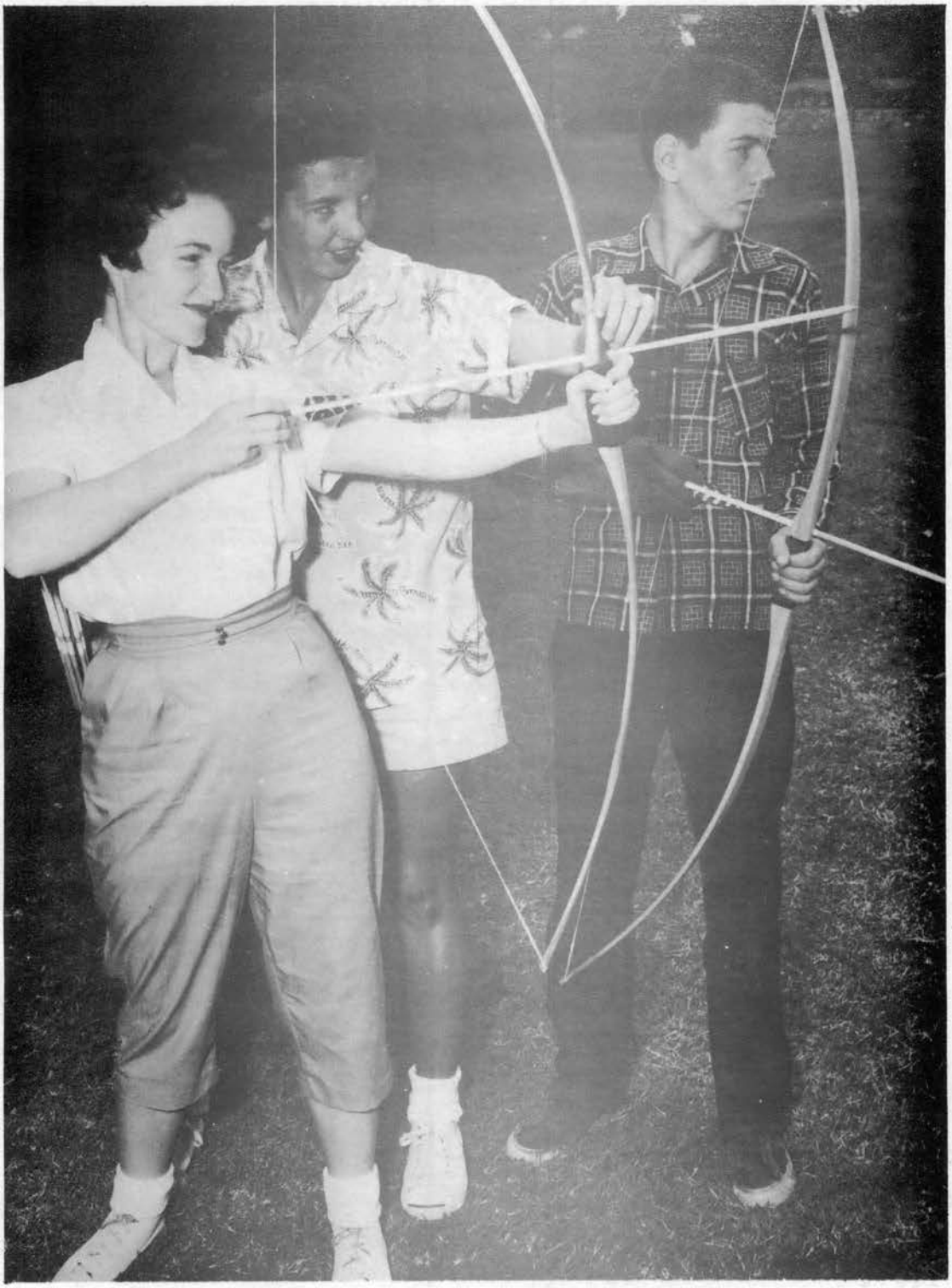

Figure 10. Archery Instruction in Owen Park.

Tulsa Recreational Department is particularly strong in this phase. The program includes a course in arts and crafts, having 1,854 participants, with the emphasis on the making of bracelets, weaving of baskets, and the tying of rope knots. This phase is only one of many. Other features are archery, tennis, swimming, and plug casting. In the past this program featured overnight camping trips at a site outside the city, but this is being discontinued because of lack of participation.

Group program planning is still in its infancy in Tulsa. The recreation leaders have in the past and will continue to emphasize youth leadership in its sports program. This year a new organization is being planned to interest parents as well as children. The organization will be called the Parents Recreation Association, and will be centered about interesting parents in the types of recreation offered at the numerous playgrounds. Another purpose of the program will be to inform parents as to the existing facilities such as the new swimming pool in East Side Park. It is also hoped that this organization will bring more young people into the supervised program through a parents "word of mouth campaign." An important part of the group planning program is to aid the children in putting on shows at the various parks.

Individual and home recreational activities are encouraged by teaching games and arts and crafts so that the children will learn basic skills that can be applied at home. This will enable the children to continue these activities unsupervised. The Tulsa Recreational Department has developed a number of interesting city-wide activities. Teenage dances and band concerts are held throughout the summer, but most of the city-wide events occur in August as a climax to the summer activities. A city-wide track meet is held in this month, not only to show the

fastest runner, but to show the parents the skills and conditioning of their children as a result of their summer sports program.

Pet lovers receive an opportunity to display their animals in the August city-wide pet show. The purpose of the show is to give the children a sense of pride in and responsibility to their animals. Indian Week is the week in August that one park is set aside for the young people to set up their Indian displays. The displays are made up of things the youngsters have learned to make in their arts and crafts program during the summer, such as teepees, rope knots, baskets, and so forth. Another city-wide activity is the climax of the sports program, the annual Oklahoma City-Tulsa Sports Festival around the 20th of August. The two compete in three sports: golf, tennis, and swimming. The winner receives a coveted trophy, in the shape of an oil well, to retain until the following year.

Most recreational departments would be satisfied with the above-mentioned achievements, but Tulsa has gone even further. To better serve those participating, the Park Department makes an annual survey of all levels of students in the city schools to ascertain likes, dislikes, and areas of interest in order to provide better service and anticipate the following summer's needs.

Another part of the Tulsa program which deserves special mention is the program for mentally retarded children. For two days a week during the summer months the children may enjoy such activities as wading in the pools, and participating in art and music. The students are especially fond of the latter activity. Grouping is in three stages and is based entirely on mental age. The children feel quite at ease since the park system employs teachers from their special schools in Tulsa. These teachers are well trained and know how to obtain the best

results from the students. Included in this year's calendar of events for the retarded children will be an overnight camping trip with parents. It is hoped that this trip will make the children aware of nature and that they will encounter many interesting experiences. The program for the mentally retarded has been good as may be summarized in the statement of one of the recreation directors, "A definite relaxing and breaking down of tensions is noted."[2]

The outstanding program described heretofore is definitely alert and meeting the needs of a growing and dynamic city.

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[2]Report of Youth Activities, Weekly Report, Recreation Department, City of Tulsa.

CHAPTER VIII

SUMMARY AND RECOMMENDATIONS

Tulsa and its park system is very fortunate in its geographical location. The winters are mild, and there is a long growing season in which the citizens of the city can enjoy the parks with their shrubs and flowers. The mild climate helps make possible all the lovely flower gardens in the parks, the Tulsa Rose Garden being an outstanding example. It is an area with abundant rainfall which occurs in the fall and spring of the year, giving rise to an abundance of flora. December and January are the only really cold months in the Tulsa area, and attendance at the parks tends to drop sharply at this time. In order to attract more people to the parks during the winter, the Park Department is constructing the new zoo building as an all-weather building that will be comfortable in any season.

Tulsa, in the past, has always purchased or constructed facilities as the need arose or was anticipated to arise in the near future. Often, the city would allow needed items to accumulate and then ask for a bond issue to acquire the needed funds. However, as the city grew, a more exacting method of purchasing has been initiated. Today, the Park Department is buying in advance of subdivision, as evidenced by the Turkey Mountain Park Site on the south edge of the city. At the same time, the city is spending great sums of money to renovate and construct new facilities at the older parks such as Owen, Frank H. Reed, West

Tulsa and others in order that they may be as attractive as the newer ones. A portion of the park budget is also being used to develop the facilities at some of the newer sites and to landscape them. Thus it may be seen that the Park Department is doing well in keeping up with the needs of a growing, modern city.

At the present time Tulsa has 50 individual parks comprizing 4,193 acres. This fact is overshadowed, however, by the fact that Mohawk Park comprises 2,832 acres, nearly two thirds of the total acreage, leaving 1,361 acres in 49 parks.[1] This situation indicates that the Tulsa Park System is lacking in geographical distribution of acreage. This lack will be remedied, however, by the acquisition of new parks in the south and southeastern sections of the city.

Tulsa's recreational program is an outstanding one, having plans for all ages and sizes of park visitors. The program is not only systematically organized, but has established an over-all plan under capable supervision. This year the program has reached more young people than ever before.

The Zoo, at present needing many new facilities, is being enlarged and, when completed, it will be one of the outstanding zoos in this part of the country. It will have new display windows and a larger assortment of animals.

From all comparisons considered by the survey of parks within a 500 mile radius of Oklahoma City, it appears that Tulsa is above average in the number of park acres per 100 people and the quantity and quality of facilities. The comparison shows, however, that Tulsa should construct more adult swimming pools.

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[1] A. O. Zeigler, Park Superintendent, Personal interview (June, 1956).

To manage all the affairs of the Tulsa Park System, the city has a carefully planned administration. A Board of Park Commissioners heads the organization and is responsible for the management of the parks and the municipal airport. Under the Board is the Park Superintendent who, in turn, is in charge of six departments: Forestry, Horticulture, Operations, Recreation, Rosarium, and Zoological.

There are many shortcomings in the Tulsa Park Department, one of the most outstanding being lack of an adequate budget. While Tulsa has done well with the amount of money it had to work with, much more could be accomplished with a larger budget. Mr. Zeigler pointed out that only a certain amount of advancing can be done under the present limited Park Department budget.[2] A $200,000 increase has been requested for next year and, if granted, should aid the city in becoming far above average in park facilities.

Future Population Growth

Consulting engineers, studying the future needs of the city for the Utility Board, estimate the ultimate population of Tulsa will be 900,000 people.[3] That, of course, will be many years in the future. The study, made by Black and Vetch and Fell and Wheeler, engineering firms, indicated five possible areas for future expansion. The areas would be the now fast growing east and southeast parts of the city and the Mingo Creek Valley area on the city's northeast side. Two new areas likely to develop are the Turkey Mountain area in the southwest part of the city and the Osage County section on the northwest side.

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[2] A. O. Zeigler, Park Superintendent, Personal interview (June, 1956).

[3] Tulsa Chamber of Commerce, Research Department (October 26, 1954).

The Mingo Valley area is expected to be the area of greatest growth with an ultimate population estimate of 212,000 persons. The Municipal Airport occupies part of this area, but on the whole the city will probably build northeast of the airport area. Mohawk Park will then become more centrally located and will function, in part, as a neighborhood park.

The second area of growth will be the east side area bounded on the north by Pine Street and on the south by 51st Street. The eastern boundary will be 150th Avenue East and the Western boundary, Memorial Boulevard. This area and the Turkey Mountain area will be two areas of great expansion, but the ultimate population will be considerably less than the Mingo Valley area.

The northwest and southwestern areas will be the areas of the least population increase with an estimated increase of less than 100,000 ultimate population for each area.

This report was prepared on the basis of population increase from 1948 to 1954, inclusive, and indicated that if Tulsa followed even the lowest possible growth rate the next 25 years of 5,000 per year, the 1980 census would give the city 350,000 persons. However, if the city continues to grow at its present rate of 12,000 per year, the 1980 population will be 532,000 persons.

Turkey Mountain Park

The Park Department purchased 70 acres to start what will be a large park unit of 160 acres or better on the south side. Mr. A. O. Zeigler stated that the over-all plan calls for a golf course to serve southside residents, which with the 51st Street Bridge nearby, would be available to all residents on both sides of the river. Since the

site is in an area that will be developed in the future, it is strongly suggested that a new adult swimming pool be included in the park. The residents of this area have to drive eight or nine miles at the present time for the use of municipal pools and often find them full when they arrive. The situation is so critical that the schools have opened their pool at Webster High School for children of junior high and high school age.

A wading pool with a bath house should also be included. The southwest area has four wading pools, but the bath houses have no shower facilities. When a child becomes dirty on the playground, he has no place to wash before getting into the pool. This situation creates unsanitary conditions and is very undesirable. Shower facilities should be constructed as soon as possible, and then the new pool to accommodate the increased population of the area should be built.

The utility board had the vision to construct a new large sewage disposal plant in the Turkey Mountain Area to take advantage of the cheaper land cost before development. It is the writer's opinion that the Park Department should acquire at least 90 more acres before they consider the Turkey Mountain site complete.

New Southeast Park

The southeast section of Tulsa is by far an area with too few parks, and the present parks are far too small. Only the new 10 to 15 acre parks are adequate in size, but they are undeveloped for the most part. There are almost no picnic facilities anywhere in this area, and as a result, most people drive to Mohawk for picnicking.

It would appear that a large park of 100 acres or more should be planned for this section of town. It is the fastest growing area at

present and is expected to grow for sometime in the future. A large park with picnic, wading, swimming, and tennis facilities would be a good start for development with a recreation building to be added later.

Improvement of Existing Facilities

In conversation with the Park Superintendent, he explained that they were initiating a program of improving facilities in the older parks. For example, they are rebuilding the bath houses at Owen and Central Parks, two of the oldest in town. Programmed for Owen Park was a new community recreation building with a roofed patio and many other features.

In developing the older neighborhoods, the writer feels that, since geographic distribution of parks is very poor in the north and southeast sections of town, the Park Department should acquire new, smaller sites of five to ten acres each in these neighborhoods for future development. These types of parks are used more often than those centrally located, therefore Tulsa should take steps to establish more such parks.

Animal Acquiring Plan

The Park Department allocates a small part of the annual budget for the procuring of animals. With the budget being inadequate as it is, the difficulty is increased, since for the past number of years this allocation has been diverted for other projects. The Tulsa Zoo does exchange animals throughout this area. However, expense is involved in this procedure, and something must be done to raise money for the use of the zoo.

Mr. Zeigler has requested an additional $200,000 for next year's budget, but most of this will be consumed in salary increases, the purchase of badly needed playground equipment, and the landscaping of new sites. Therefore, some method must be devised to acquire animals at a steady pace, allowing a regular growth in the zoo.[4] A way in which the city might add badly needed animals would be for civic organizations to give benefits to raise money for the zoo. The Park Department, not paying the initial outlay, would be able to afford the upkeep of the new animals.

Another way that would achieve the same result, but take more time, would be for the city to have a "Friends of the Zoo Campaign," similar to that of Oklahoma City. Each child or parent could contribute any amount from one dollar to $1,000 and in turn hold a membership card. This plan would involve much advertising, but should aid the zoo over a period of time.

A third system would be to charge for admission to the zoo. This method would probably meet with public disfavor but might be an alternative if the budget increase is insufficient.

The last and most practical method would be for the city to call for a bond issue for the express purpose of getting money for acquiring zoo animals. By doing this, the city could have one of the best zoological gardens in the nation.

Neighborhood Parks

In order to assure that the city has proper park facilities throughout the city, the Park Department has been purchasing new parks in areas

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[4]A. O. Zeigler, Park Superintendent, Personal interview (June, 1956).

being subdivided. These parks are usually ten to 15 acres in size so that they are able to accommodate several activities at one time. For example, all the new parks will have wading pools, concrete tennis courts, softball diamonds, and picnic tables. The city is trying to arrange neighborhood parks so that everyone will be able to walk only six blocks at the most to reach a playground. This will mean reworking some of the older neighborhoods and establishing new parks there as well.

The city voted a $150,000 bond issue in 1954 for the acquisition of new parks and the remodeling of facilities at the older parks. This has been in progress about one year and the older parks are again becoming very popular play areas. This is particularly important since the city lacks adequate distribution of parks in these areas. Many neighborhoods are over a mile from the nearest park, so good parks are important in these areas in order to attract visitors. The Park Department has recently (1954) purchased sites in the north and northwest neighborhoods to equalize the poor distribution.

The south part of the city also needs more parks. The writer would suggest a partial solution to the problem there by calling attention to the land already owned by the city along Riverside Drive. This area next to the Arkansas River has an abundant stand of trees, and the soil is of a rich, alluvial variety. The area between the river and the parkway is often 200 to 500 yards in width, and the area is over five miles long. This land could be developed into a very attractive and useful park.

Property Acquisition Plan

Tulsa has a very fine property acquisition plan in effect to date. They acquire land in or near subdivisions as soon as they are announced and thus have the opportunity to buy the land at lower prices. This system has proved satisfactory.

The Park Department found that by establishing liason with the Tulsa Master Area Planning Commission it was able to acquire land in areas not yet subdivided at a very low cost, and often it was able to choose the best land as well. The Tulsa Master Area Planning Commission had the survey made by the two engineering firms of Black and Vetch and Fell and Wheeler, which is very advantageous for future planning.

A method to insure better geographical distribution of the parks would be to require each subdivision of 100 homes to set aside a proportionate area to be sold to the city at purchase value. The Park Department could then either purchase or reject the sites in a given amount of time.

Freeways

Now under construction is the new By-Pass for Federal Highway 66. To be constructed soon will be the new Broken Arrow Freeway which will extend from downtown Tulsa to the town of Broken Arrow. Both of these super highways offer the Park Department an opportunity to acquire sites very reasonably.

Already established is a park at the west end of the 51st Street Bridge. This park is beautiful, very easy to reach, and well off the four-lane highway. There could be many parks that might be established

at junctions or along parallel side roads. Such areas would be ideal as roadside parks to tempt motorists to stop for a short time in Tulsa.

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